

## Part Two: Battlefield Resources

### 1. Historic Landscapes

Battlefields are historic landscapes. Across farmers' fields armies clashed briefly and moved on, leaving only scarred and blackened earth, hasty burials, scattered bullets and shell fragments, the litter of combat. Residents returning to the site picked up the pieces of their lives, rebuilt their burned-out homes, and planted the fields anew. Hastily buried bodies were unearthed and interred in local and national cemeteries. Relics were collected or discarded. Life went on.

Yet the passing event fundamentally altered the relationship of the community to the land. Once obscure places become associated forever with the momentous events of America's wars. So long as the memory is nourished, people will point and say that is where the battle happened. This is where strangers from all parts of this nation and others came together by choice or by accident to transform their own moment of local history into American history and sometimes world history.

In many places, aspects of the American past lie close to the surface. The land is farmed much as it was a hundred years ago. Old houses, mills, and churches survive, or their foundations may be located. The new road network is congruent in many places with the old, except those old turnpikes have been straightened and widened to become major highways. Paved county roads often follow the winding courses of old farm roads. A village may have grown into a town but may preserve its core as a historic district.

Elsewhere, large-scale re-contouring of land, high-density development, strip malls, quarrying, clear-cutting, highway construction, or some other drastic change in land use has obliterated the historic landscape. Armies fought for possession of a vital transportation crossroads—locations that continue to spur the necessities of modern growth and development. Only where major modern highways and railroads have bypassed a once important settlement, does the historic landscape stand fully revealed to modern eyes. Often more of the past survives within the modern landscape than is immediately perceived. It is the battlefield researcher's task to identify these surviving features.

Understanding a battlefield demands that a researcher become familiar with the features of the landscape as they appeared at the time of the battle. This provides a context for determining what is significant historically and culturally, what survives, and what is lost. Several good sources are available for learning to "read" the patterns and elements of the historic landscape. *Our Vanishing Landscape* by Eric Sloane provides a useful introduction to agricultural patterns, siting mills, building roads, and recognizing survivals from the past. *Common Landscape of America* by John R. Stilgoe is an in-depth history of the changing landscape with chapters on roads, farmsteads, fences, woodlots, churches, furnaces, mills, and so forth. In *War over Walloomscoick*, Philip Lord Jr. analyzes land use and settlement patterns on the Bennington battlefield by comparing historic maps and battle accounts with the landscape, past and present. Lord's monograph offers a thorough exercise in battlefield survey methodology.<sup>3</sup>

---

<sup>3</sup> Eric Sloane, *Our Vanishing Landscape*. New York: W. Funk, 1955 (reprinted in paperback). John R. Stilgoe, *Common Landscape of America, 1580-1845*. New Haven: Yale University Press, 1982 (reprinted in paperback). Philip Lord, Jr., *War over Walloomscoick: Land Use and Settlement Pattern on the Bennington Battlefield 1777*. New York State Museum Bulletin No. 473, 1989.

## 2. Military Terrain

The battlefield surveyor must also learn to view the terrain through the soldiers' eyes. The military has developed a process for evaluating the military significance of the terrain denoted by the mnemonic KOCOA—Key Terrain, Obstacles, Cover and Concealment, Observation and Fields of Fire, Avenues of Approach and Retreat.

*Key Terrain* is ground—typically high ground—that gives its possessor an advantage. Officers deployed troops to occupy key terrain or to deprive the enemy of the privilege. Possessing the high ground imparted real and psychological advantages to the defending force. Battles were fought over possession of key terrain features.

*Obstacles* are terrain features that prevented, restricted, or delayed troop movements. These might be rough, impassable ground, a swamp, a dense wood, a river, or even a small stream if swollen by rain at the time of battle, or fences, ditches, and hedges. In general, defenders placed as many obstacles between themselves and the enemy as possible and tried to minimize obstacles that limited their own movements. Commanders sought to anchor their flanks on some local feature—a hill, ravine, stream, or swamp. A flank that could not be anchored was in danger of being “turned” and the battle lost. Battle lines often faced off on opposing ridges with the intervening valley as an obstacle.

*Cover and Concealment.* Cover is protection from the enemy's fire, e.g. the brow of a hill or a stone fence. Concealment is protection from vigilant eyes. Ravines provided security for massing reserves or deploying for an attack. An intervening hill or a wood lot might conceal one's force from observation. A smaller force might use the terrain to disguise its inferiority in numbers; a larger force might conceal its true size to lure a smaller force to battle. All soldiers sought cover in combat when they could. Soldiers often provided their own cover by constructing earthworks or piling up fence rails.

*Observation and Fields of Fire.* It was an advantage to observe the movements of the enemy to prevent surprise. This might require occupying high ground that was not necessarily key terrain or utilizing open fields and vistas to the best advantage. In general, it was best to see more of the enemy and allow him to see less. Open terrain in front of the battle lines provided fields of fire for weapons. The intent in establishing a field of fire was to minimize the amount of “dead ground” in front of the lines. Dead ground is an area, a swale or ravine, that cannot be observed or fired into, thus a place for the enemy to conceal themselves. Artillery might be posted on some an elevation to the rear of the infantry to command a greater field of fire.

*Avenues of Approach and Retreat* are primarily defined by the transportation network. Avenues were used for mobility but also had to be defended. Avenues stretch backward to supply lines and forward to objectives. It was important to possess transportation crossroads or bottlenecks--such as mountain gaps, fords, and bridges--in order to increase mobility while limiting the enemy's. By studying the military applications of the terrain, a surveyor develops a basis for judging the merits and flaws of battle accounts.

### **3. Types of Battlefield Resources**

Battlefield resources fall into four broad classes: *natural features*, *cultural features*, *military engineering features*, and *artifacts*.

#### *Natural Features*

The natural terrain or topography of the landscape is defined by the drainage pattern and relative elevation. Natural features include rivers, streams, and swamps, hills and valleys, and the natural land cover—forest, meadow, desert. Often nuances of the terrain that are not apparent on a map influenced how a battle was fought. Rocky outcrops or a simple fold in the ground might have provided cover for attacking troops at a crucial moment. It is important to assess how much the terrain has changed since the battle event. Have streams been diverted or channeled? Have swamps and bogs been drained? Terrain features are typically the most durable of battlefield resources. Terrain is altered only by erosion or erased by the bulldozer and earthmover.

#### *Cultural Features*

Cultural features are elements of the historic landscape created by humans. In many cases, the battle landscape was farmland or forest. The features of the American agrarian landscape included the network of turnpikes, farm roads, canals, and railroads, the distribution of small villages and hamlets, isolated farms, mills, churches, and other structures, and the pattern of fields and fences, woodlots, and forests as determined by prevailing agricultural practices. This cultural landscape, in turn, was shaped by topography--natural drainages, elevations, gaps, fords, and soil quality. Based on topography, farmers chose which crops to plant, where to plant, and which farming techniques to employ. Farming practices varied regionally from large-scale plantations utilizing slave labor to small-scale homestead farms using only family labor. Different farming methods shaped population density, the distribution of structures, the road network, and the mosaic of fields and woodlots.

The cultural landscape influenced the location and direction of combat. Road networks determined the collision of armies and influenced the direction and speed that military units could travel to reach the battlefield to extend or support the battle line. The edge of a woodlot or a sunken road among open fields provided both protection and a clear field of fire. Linear resources such as wood and stone fences enabled troops to form up in relative protection. Buildings and structures were singled out for use as headquarters, hospitals, or sniper posts.

Cultural resources are susceptible to decay and alteration: buildings collapse; fields grow up; fences disappear; new roads bypass old roads; natural vegetation reclaims abandoned farmlots, roadways, and even houses. Often, however, historical research will guide the surveyor to remnants of these features if they do not appear visible at first glance.

#### *Military Engineering Features*

Military earthworks (field fortifications, entrenchments, trenches) constructed by soldiers or laborers are an important resource for understanding a battle event. Surviving earthworks often define critical military objectives, opposing lines of battle, and no-man's land. It is important to examine surviving earthworks and document their locations and condition as accurately as possible. Military earthworks were employed to some degree by all of the armies that have fought on American soil, although construction was certainly more extensive during the American Civil War.

Many earthworks began to disappear almost immediately after they were abandoned. Farmers filled in ditches to replant their crops or towns expanded into the battlefields. Nevertheless, examples survive from the French and Indian War, the American Revolution, the War of 1812, and the Mexican War.<sup>4</sup> If on the battlefield for a sufficient time, military engineers might construct military roads and logistical facilities in support of front line troops.

#### *Artifacts* (Contributed by Sue Henry-Renaud)

There is more to the battlefield than meets the eye. Although the visible landscape today may present a quiet, pastoral scene, it belies the relics and debris of a violent, destructive event. Beneath the surface is the physical archeological evidence of the actions that took place there: soldiers waiting, fighting, building and defending fortifications, doctors treating the wounded in hospitals, burial details interring the dead. The archeological record provides a direct physical link to battle events; archeological evidence physically anchors the events to the place.

An artifact's ability to inform us about the past lies in the structure of the archeological site. An artifact is only valuable in terms of its relationship to other artifacts. Undisturbed patterns and relationships among soil layers, artifacts, features, and sites convey important information about past events and connects the physical reality of the battle to its broader landscape. An archeological study may reveal unmarked graves, bullets or cartridge cases, fragments of clothing, traces of lost roadways, old campsites, vanished buildings, lines of earthen fortifications, and even ships sunk in naval battles. Archeologists and historians use this evidence to

- ◆ verify troop movements
- ◆ map out battle actions in time and space to interpret a battle's progress
- ◆ reveal previously unrecorded facets of the battles
- ◆ confirm locations and uses of destroyed buildings and structures
- ◆ verify or disprove long-believed myths or "official" accounts
- ◆ understand the effects of battle on civilians and other noncombatants
- ◆ offer a more complete picture of the life of the soldier in camp and in battle
- ◆ identify soldiers' graves

Archeological evidence on battlefields is fragile and is easily damaged or destroyed. Bulldozers plowing over fields, relic-hunters digging for treasure, and even well meaning battlefield visitors walking in restricted areas can cause damage to the hidden battlefield, and thus lessen our ability to learn more about the battle. Every time someone takes an artifact from a battlefield, it loses much of its meaning. Bullets, buttons, cartridges, and other battlefield relics then become objects without context; they have lost most or all of their larger value.

Archeology is itself most often destructive. Although many people perceive excavation as the main research tool for archeologists, it is actually *only* carried out in special cases where important knowledge is to be gained and shared with the public, or where a site is threatened with destruction.

---

<sup>4</sup> Many military engineering textbooks from the 18th and 19th centuries are available. Prominent among these is D. H. Mahan, *A Treatise on Field Fortification*, New York: Wiley, 1863 and various editions.

Today archeologists are coming to rely on non-invasive remote-sensing technologies to locate archeological resources in the field. Ground penetrating radar, proton magnetometers, soil resistivity meters, and other similar instruments measure variations in subsurface deposits that allow skilled technicians to distinguish archeological features from naturally occurring soil and rock formations without excavating them.

It is, of course, completely legal in most states to dig for artifacts on private property with the landowner's permission. Hobbyists who collect battlefield artifacts often are willing to discuss their finds and offer an interpretation of battle events. In the past, artifact collectors have provided useful information to battlefield researchers. When possible, battlefield researchers should walk the ground with local collectors so that their observations can be recorded. In this way, some small bit of the pattern of artifact distribution may be rescued from oblivion.<sup>5</sup>

In reference to the archeological record, there are several things to keep in mind during archival research and field survey.

1. Most defining features identified in the historic documents and in the field have archeological resources associated with them. Above ground evidence of these features may have vanished, but subsurface evidence probably remains to tell part of the battle story.

2. During your archival research, record information about battlefield burials, the presence and location of hospitals and burial grounds, or activities of reburial details.

3. Only professional archeologists with experience on battlefield should undertake archeological surveys or excavations on battlefields. Archeologist will take the results of the archival research and field survey and assess the potential for finding archeological resources on the battlefield.

4. National Park Service archeological management policies require that researchers *do not dig or pick up artifacts found on the ground*. Record, but do not disturb, the locations and identities of any artifacts or groupings of artifacts on your Defining Features List and on your survey map.

5. Archeological information is sensitive. Please do not publicize information about archeological resources that you may find.

---

<sup>5</sup> For a full discussion of archeological resources on private lands see Susan L. Henry, *Protecting Archeological Sites on Private Lands*, Washington, DC: National Park Service, 1993.